Application / Control Number 10/086,819.

Art unit 3611

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Response to detailed action, 8/27/03.

1. Drawings are enclosed.

2. New claim is written.

3. New claim is written.

4. New claim is written.

5, 6, 7. This invention relates to controlling the steering of a vehicle following a blowout at high speed.

Two elements are necessary to accomplish this:

1. The inducing of a high degree of inertia into the steering mechanism in order to block the effect of road forces on the front wheels following a high speed blowout.

2. An increase in the torque multiplication capability of the power steering mechanism in proportion to the increase in the inertia induced into the steering mechanism.

The patents cited are capable of satisfying element 1., but make no mention of element 2.

The cited patents rely on a conventional power steering mechanism over the full range of inertia induced into the steering mechanism.

This may prove to be unacceptable to the driver, in that each change in the degree of inertia induced would change the "feel" of the steering wheel to the driver.

As the inertia induced reached higher levels, the steering wheel would have the "feel" of driving through mud.

At high levels of inertia a conventional power steering system might be overloaded and fail.

It appears that the cited patents are primarily concerned with inducing just enough inertia to overcome road forces on the front wheels caused by cross winds, bumps and potholes.

This invention is concerned with:

1. Inducing enough inertia to overcome the road forces on the front wheel's following a blowout at highway speeds.

2. While at the same time increasing the power steering capabilities to a degree that permits the driver to easily steer the vehicle.

DRAWINGS:

A preliminary drawing is enclosed. This drawing was used in a patent application for a braking device for an "18 wheeler". The pipes 8 and 14 then extended to a heat exchanger.

In the present patent application the pipes 8 and 14 would be connected together by a short length of pipe.

A fluid circuit is then completed through the chambers of the rotary gear pump-metor 4 and flow control valve 12.

Fig. 1 and 2 numerical parts designation.

Fig. 1 Rotary gear pump-motor supported on vehicle frame.

2. Vehicle frame members.

4. Body of rotary gear pump-motor.

6. Steering shaft, extending from steering wheel through rotary gear pump-motor to steering gear box.

8. Pipe from rotary gear pump-motor lower port.

10. Pipe from rotary gear pump-motor upper port.

12. Flow control valve.

14. Pipe from flow control valve.

Fig. 2 Cross section of rotary gear pump-motor.

4. Body of rotary gear pump-motor.

6. Steering shaft.

16. Lower port of rotary gear pump-motor.

18. Upper port of rotary gear pump-motor.

20. Drive gear of rotary gear pump-motor.

22. Idler gear of rotary gear pump-motor.

24. Idler gear shaft.

Pipes 8 and 14 would be connected together to complete a fluid circuit through the two chambers of the rotary gear pump-motor and the flow control valve 12.

CLAIM:

Control of vehicle steering following a high speed blowout, comprising:

a. a braking device connected to the steering mechanism of a vehicle for providing inertia to block the effect of road forces on said steering mechanism following a high speed blowout,

b. means for energizing said braking device,

c. a torque multiplying device connected to the steering wheel of said vehicle to enable the driver to easily override said inertia and steer said vehicle,

whereby steering of said vehicle will be controlled following a high speed blowout.